

The WFF 'N PROOF Series

World's Most Challenging and Entertaining Educational Games

Developed by Professor Layman E. Allen in the course of research for
the ALL Project (Accelerated Learning of Logic) at Yale University.



WFF 'N PROOF: The Game of Modern Logic

21-game kit that starts with games that can be mastered by six-year olds and ends with games that will challenge intelligent adults. Provides practice in abstract thinking and an opportunity to learn some mathematical logic. Retail Price: \$6.00



WFF: The Beginner's Game of Modern Logic

2-game kit for beginners. Provides practice in constructing and recognizing WFFs (Well Formed Formulas -- expressions that are in mathematical logic, similar to what sentences are in English). Retail Price: \$1.25



EQUATIONS: The Game of Creative Mathematics

5-game kit for use in home and school (grades 1 to 12). Provides practice in elementary arithmetic operations (addition, subtraction, multiplication, division, exponentiation, and radicals) in a variety of numeral bases (decimal, octal, binary, etc.). Retail Price: \$2.50

Enclosed is my check for \$_____.

Please send to me:

<input type="checkbox"/> WFF 'N PROOF	\$6.00
<input type="checkbox"/> WFF	\$1.25
<input type="checkbox"/> EQUATIONS	\$2.50
<input type="checkbox"/> WFF 'R DOODLES	\$1.00

(Add \$.25 per unit for mailing costs.)

Name _____

Street _____

City & State _____

Additional kits may be obtained by making checks payable to and sending this order form to the outlet from which this was obtained.

WFF 'N PROOF
P. O. BOX 71
NEW HAVEN, CONN.

Upon return of kit within 10 days, full purchase price will be refunded to anyone not completely satisfied.

The Use of WFF 'N PROOF in the Junior High School

Roderick A. Magoon, Chairman, Science Department
Besser Junior High School, Alpena, Michigan

Last year I read WFF 'N PROOF was a game of logic. This sounded like a good way to challenge and/or amuse my better students. After experimenting, I realized the games would fit well for all my students, not only the gifted.

This year I used WFF 'N PROOF in my regular course of study in science. We played and learned for five weeks. It was used in seven classes: six seventh grades and one eighth, a total of two hundred thirty students. We learned through Co Practice.

In order to insure better understanding, three devices were used. First, the overhead projector. By using stencil letters, it was easy to show the students exactly what constituted a WFF. It also helped to show how to build complex WFF's. Second, dittoed problem sheets offered students more practice. Third, the classes were divided into groups of four; any smaller and there were too many groups to work with; any more students per group and each student did not get enough practice. With about thirty-two students per class, we averaged eight groups, which kept me jumping; but isn't that what a teacher is supposed to do?

After using the games for five weeks, the students were asked what they thought of the games. Here is a brief summary.

1. Good, because it makes me think.
2. Bad, because it makes me think (always that small percent!)
3. Keeps the class interesting.
4. We do it, we don't have to listen as in other classes.
5. There is a thrill in challenging wits with other students.
6. It helped my math grade!)
7. Now I can do something my parents can't do!)
8. It taught me to do things step by step.
9. It taught me to concentrate.

Here are some interesting results of our use of logic.

1. Out of 230 students, only 2 could not understand it.
2. Because of the interest it aroused, the students bought
 - a. 35 WFF 'N PROOF sets
 - b. 80 WFF sets
 - c. 8 EQUATIONS sets
3. A school-wide WFF 'N PROOF Club was organized.
4. Our weekly science radio program featured a show on logic.
5. Logic has been accepted as an elective class for eighth graders next year.

Aside from developing thorough reasoning, the social implications cannot be overlooked. I found several very slow students good players; so good they were accepted as class authorities over the former class leaders. Usually these students were outcasts. Also, the students learned to criticize and be criticized, which is difficult at the early teens.

All in all, the five weeks was a fascinating period. The students seem to analyze and criticize better; their scientific reasoning has been strengthened. And they had fun. The best testimonial to the effectiveness of WFF 'N PROOF in our school system is it has been accepted by the administration as an elective class next year. So next year should be even more fruitful than this!

Last June in California a class of junior high school students went to summer school and played a game called WFF 'N PROOF. ...

The I.Q. scores of the students increased, on the average, 17 points after six weeks. The games were played under the supervision of their regular teachers.

NEW YORK HERALD TRIBUNE

YALE LAW PROFESSOR TURNS TABLES ON MORY'S

... WFF 'N PROOF, a subtle game of modern logic that has the complexity of chess and the excitement of poker... is played with dice and when two or more persons are testing wits they can make the tables at Mory's look more like the tables at Las Vegas. But the game will be played in classrooms, not casinos.

THE HARTFORD COURANT

A new game devised by a Yale professor is threatening the peace of mind of parents of school-age youngsters. ... The game gives the kids a perfect opportunity to turn the tables on elders who demand that they become whizzes at math in a way Daddy never did. It's a sort of "Scrabble", but with numbers.

SAN FRANCISCO CHRONICLE

... you will approve of WFF 'N PROOF, the game of modern logic. For the expert it's serious fun. For the skeptic it's putting things in their proper place. For the novice it's a course of study. ... Although it is played by many for its entertainment value, WFF 'N PROOF is viewed primarily as an instructional aid, and is used at some colleges for that purpose. ...

REVIEW OF METAPHYSICS

ESQUIRE

It isn't a book, but it is the sort of thing booklovers enjoy, so it's fitting enough to tell you about WFF 'N PROOF (The Game of Modern Logic) in a book column. It's attractively put up to look like a book, anyway. ...

Actually it is a series of games. Six-year-old children (and illogical women like me) will be challenged by the first few games. ...

I've loaned it around for some testing of my own. The consensus of opinion: (1) It's fun. (2) It will teach logic -- beautifully. (3) It's worse than bridge for starting husband-wife arguments.

DATA PROCESSING DIGEST

DAILY SENTINEL, Grand Junction, Colo.

Effects of Intensive Learning of the WFF 'N PROOF Games upon the I.Q. Scores of

Junior High and High School Students

(60 hours instruction in 3 weeks)

SUMMARY OF RESULTS: Average increase in nonlanguage
I. Q. of more than 20 points

AVERAGE INCREASE IN I.Q. SCORES

	<u># Subjects</u>		<u>Experimental (Logic) Group</u>		<u>Control (Algebra) Group</u>	
	<u>Exp.</u>	<u>Con.</u>	<u>Language</u>	<u>Nonlanguage</u>	<u>Language</u>	<u>Nonlanguage</u>
All Students	43	34	5.9	20.9	4.2	6.6
Boys	28	23	5.4	22.4	4.6	7.3
Girls	15	11	6.6	18.0	3.4	5.1
Junior High Students	35	31	6.3	21.9	4.1	7.0
High School Students	8	3	4.1	16.6	4.7	2.0

The experimental course using the WFF 'N PROOF games to teach some mathematical logic was conducted at John Burroughs High School in the 1964 summer school by Robert W. Allen. The California Test of Mental Maturity 1957 S-Form, Junior High School and Advanced, was administered as a pre-test on July 2, 1964, and as a post-test on July 21, 1964.

The control group consisted of those enrolled in the course in pre-algebra conducted at the same school that summer by Nort Nelson, Vice Principal of John Burroughs High School. The same tests were administered to the control group on July 6, 1964, and July 24, 1964. The tests were administered by Mr. Nelson.

Report 1964-1
Project ALL
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New Haven, Conn.

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